

Questions and Answers on Avian Influenza (Adapted from the U.S. Centers for Disease Control and Prevention and the World Health Organization websites)

Question: What is an avian influenza A (H5N1) virus?

Influenza A (H5N1) virus - also called "H5N1 virus" - is an influenza A virus subtype that occurs mainly in birds. It was first isolated from birds (terns) in South Africa in 1961. In 2003, a strain of H5N1 emerged in Asia that was highly deadly among poultry. This virus quickly spread to other bird species. While infection has been concentrated in Southeast Asia, the H5N1 virus has the potential to circulate among birds worldwide. For detailed information about avian influenza, visit the U.S. Centers for Disease Control and Prevention in Atlanta (CDC-Atlanta) website at <http://www.cdc.gov/flu/avian/gen-info/facts.htm> or the World Health Organization (WHO) website at http://www.who.int/csr/disease/avian_influenza/avian_faqs/en/index.html or the Food and Agriculture Organization of the United Nations (FAO) website at http://www.fao.org/ag/againfo/subjects/en/health/diseases-cards/special_avian.html

Question: What is the H5N1 bird flu that has recently been reported in Asia?

Outbreaks of influenza H5N1 occurred among poultry in eight countries in Asia (Cambodia, China, Indonesia, Japan, Laos, South Korea, Thailand, and Vietnam) during late 2003 and early 2004. At that time, more than 100 million birds in the affected countries either died from the disease or were killed in order to try to control the outbreak. By March 2004, the outbreak was reported to be under control. Beginning in late June 2004, however, new deadly outbreaks of influenza H5N1 among poultry were reported by several countries in Asia (Cambodia, China, Indonesia, Malaysia, Thailand, and Vietnam). It is believed that these outbreaks are ongoing. Human infections of influenza A (H5N1) have been reported in Thailand, Vietnam, Cambodia, and Indonesia.

Question: What is the risk to humans from the H5N1 virus?

The H5N1 virus does not usually infect humans. In 1997, however, the first case of infection from a bird to a human was identified during an outbreak of bird flu in poultry in Hong Kong. The virus caused severe respiratory illness in 18 people, 6 of whom died. Since that time, there have been other cases of H5N1 infection among humans. Most recently, human cases of H5N1 infection have occurred in Thailand, Vietnam, Cambodia, and Indonesia. The Case Fatality Rate (CFR) prior to March 2005 was around 70% but has since dropped to 50 percent. Almost all cases to date have occurred after direct contact with infected poultry or contaminated surfaces. Less than 5 cases have been attributed to person-to-person transmission. So far, spread of H5N1 virus from person to person has been rare. However, because all influenza viruses have the ability to change, scientists are concerned that the H5N1 virus could become more adapted within humans and then more easily spread from one person to another. Because these viruses do not commonly infect humans, there is little or no immune protection against them in the human population. If the H5N1 virus were able

to infect people and spread easily from person to person, an "influenza pandemic" (worldwide outbreak of disease) could begin. No one can predict when a pandemic might occur. However, experts from around the world are watching the H5N1 situation in Asia very closely and are preparing for the possibility that the virus may begin to spread more easily and widely from person to person.

Question: What is the current situation in Turkey regarding Avian Influenza? Is this an Epidemic? Updated October 13, 2005

On October 1, 2005 Turkish officials reported an outbreak of Avian Influenza affecting only poultry on a farm. Tests are ongoing to determine which strain of Avian Influenza is present in Turkey. It is not yet known whether the H5N1 strain is responsible. There have been no reported cases of human illness or death in Turkey.

Question: How is infection with H5N1 virus in humans treated?

Currently no vaccine has been approved to provide protection against the H5N1 strain currently in Asia, although a number of candidates are in development. Anti-viral compounds such as amantadine, rimantadine, zanamavir and oseltamavir (Tamiflu) have shown some efficacy against other Influenza A viruses, and an initial study using oseltamavir on mice suggests that it may be effective against H5N1. However, some of the H5N1 virus subtypes in Southeast Asia possess a mutation that would suggest that they are less sensitive to some antiviral compounds.

Question: Should I begin taking antiviral medications such as Tamiflu if I'm planning a visit to Turkey? Is Tamiflu available in Turkey?

Travelers coming to Turkey should consider scheduling an appointment with their health care provider before leaving the U.S. to discuss risks for potential exposure to H5N1. Risk of exposure and the decision to take a drug like Tamiflu, which, as yet, has no proven role for preventing human H5N1 infections must be determined on a case-by-case basis. Only you and your health care provider can determine that risk and what the most appropriate precautions are for you. Tamiflu (oseltamivir) is available in Turkey.

Question: Is there a vaccine to protect humans from H5N1 virus?

There currently is no vaccine to protect humans against the H5N1 virus that is being seen in Asia. However, vaccine development efforts are under way. Research studies to test a vaccine to protect humans against H5N1 virus began in April 2005. (Researchers are also working on a vaccine against H9N2, another bird flu virus subtype.) For more information about the H5N1 vaccine development process, visit the National Institutes of Health website.

Question: What are the symptoms of bird flu in humans?

Symptoms of bird flu in humans have ranged from typical flu-like symptoms (fever, cough, sore throat and muscle aches) to eye infections, pneumonia, severe respiratory diseases (such as acute respiratory distress), and other severe and life-threatening complications. The

most consistent symptoms include fever ($>38^{\circ}\text{C}$ or $>100.4^{\circ}\text{F}$) and a respiratory syndrome including a non-productive cough and sore throat.

Question: How does bird flu spread?

Infected birds shed flu virus in their saliva, nasal secretions, and feces. Susceptible birds become infected when they have contact with contaminated excretions or surfaces that are contaminated with excretions. It is believed that most cases of bird flu infection in humans have resulted from contact with infected poultry or contaminated surfaces.

Question: What is the risk to humans from bird flu? The risk of H5N1 is considered quite low for most people.

Care should be taken, however, at times of outbreak among poultry (domesticated chicken, ducks, turkeys, etc.). There is a possible risk to people who have contact with infected birds or surfaces that have been contaminated with excretions from infected birds. The current outbreak of avian influenza A (H5N1) among poultry in Asia is an example of a bird flu outbreak that has caused human infections and deaths. In such situations, people should avoid contact with infected birds or contaminated surfaces, and should be careful when handling and cooking poultry.

Question: Is it safe to eat poultry and eggs in Turkey?

There have been no reported human cases of AI contracted from poultry or egg consumption. Nevertheless, best practices during handling of raw poultry meat and usual recommended cooking practices for poultry products should be followed to lower the risk of common bacterial diseases spread by poor handling and cooking techniques. Eggs from infected poultry could also be contaminated with the virus and therefore care should be taken in handling shell eggs or raw egg products.

Recommended good hygienic practices to avoid spreading of the virus through food (adapted from the World Health Organization 5 Keys to safer food):

- Separate raw meat from cooked or ready-to-eat foods to avoid contamination:
Do not use the same chopping board or the same knife.
Do not handle both raw and cooked foods without washing your hands in between and do not place cooked meat back on the same plate or surface it was on before cooking.
- Do not use raw or soft-boiled eggs in food preparations that will not be heat treated/cooked.
- Keep clean and wash your hands: after handling frozen or thawed raw chicken or eggs, wash thoroughly with soap your hands, surfaces and utensils that have been in contact with the raw meat.
- Cook thoroughly: Thorough cooking of poultry meat will inactivate the viruses. Either ensure that the poultry meat reaches 70°C (160°F) or that the meat is not pink. [Note: USDA/FSIS recommends 180 degrees Fahrenheit for whole turkey/chicken, thighs or wings and 170 degrees Fahrenheit for chicken and turkey breasts]. Egg yolks should not be runny or liquid.

For more information about avian influenza and food safety issues, visit the World Health Organization (WHO) food safety website at <http://www.who.int/foodsafety/micro/avian1/en/>

Question: Are other animals at risk for H5N1 infection?

Evidence of H5N1 virus has been found in a variety of domestic and wild fowl, pigs, and domestic and wild cats.

Question: What precautions should I take if I live in an area affected by bird flu?

The spread of bird flu in affected areas can normally be prevented.

- People should avoid contact with chickens, ducks or other poultry -and their waste - unless absolutely necessary.
- Children are at higher risk because they may play where poultry are found. Teach your children the following basic guidelines:
 - Avoid contact with any birds, their feathers, feces and other waste.
 - Do not keep birds as pets.
 - Wash hands with soap and water after any contact.
 - Not to sleep near poultry.
- Do not transport live or dead chickens, ducks or other poultry from one place to another even if you think your birds are healthy.
- Handling of poultry in affected areas should be done within the area without transporting them to other areas.
- Do not prepare poultry from affected areas as food for your family or animals. The slaughter and preparation of such birds for food is dangerous.
- If you unintentionally come into contact with poultry in an affected area, such as touching the bird's body, touching its feces or other animal dirt, or walking on soil contaminated with poultry feces:
 - o wash your hands well with soap and water after each contact;
 - o remove your shoes outside the house and clean them of all dirt; and
 - o check your temperature for 7 days at least once daily. If you develop a high temperature (>37.5°C or >99.5°F), visit a doctor or the nearest health care facility immediately.

For more information about living in affected areas and possible contact with infected animals, visit the WHO website at http://www.who.int/csr/disease/avian_influenza/en/

Question: What are the travel recommendations regarding the Avian Influenza bird flu outbreak in Turkey?

The strain of AI in Turkey has not yet been identified and there are no specific travel recommendations in affect. The U.S. CDC-Atlanta currently advises that travelers to countries in Asia with known outbreaks of influenza A (H5N1) avoid poultry farms, contact with animals in live food markets, and any surfaces that appear to be contaminated with

feces from poultry or other animals. For more information about travel recommendations, visit the CDC-Atlanta website at <http://www.cdc.gov>

Question: How is the U.S. Government helping to address the Avian Influenza problem?

In recognition of the nature of the AI threat and to support the international response to the H5N1 virus, the U.S. Congress appropriated in June 2005 \$25 million dollars to help contain and prevent its spread in the Asia region. A team of experts from CDC, U.S. Department of Agriculture (USDA) and USAID recently concluded an assessment visit to the region.

The U.S. has proposed an "International Partnership on Avian and Pandemic Influenza" (IPAPI) to address the emerging threat of AI. We hope to bring together countries to improve worldwide readiness by elevating the issue on national political and social agendas, coordinating efforts among donor and affected nations, and mobilizing and leveraging resources.

References

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